Post Incident Analysis
Executive Summary

River Bottom Incident
CA-FRN #0953767

July 2 to 4, 2009

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EXECUTIVE SUMMARY

On the afternoon of July 2, 2009, a wildand fire of unknown cause developed in the river bottom of the San Joaquin River, near Toletachi Road, within the City of Fresno. Weather conditions at the onset were 90 degrees F, RH 30 percent, winds 0 to1 miles per hour northwest at the point of origin and 100 degrees F, RH 14 percent, winds 7 miles per hour northwest on the upper slopes. The fire was being driven by a moderate up slope, up canyon wind predominantly from the northwest towards a subdivision of homes along Big Sandy Road, which all fall within a county island protected by the North Central Fire Protection District (contracting with Fresno Fire Department for service).

Due to the size, scope, and potential duration of the incident, county-wide mutual aid resources were requested from Clovis Fire Department, Fresno County Fire Protection District, CAL FIRE – Fresno-Kings Unit, California Highway Patrol (Helicopter), and the US Forest Service.

The fire was first reported at 1556 hours on July 2, 2009. The fire burned 11.9 acres, destroyed one residential structure, and damaged two other residential structures. Property damage estimated at $1,500,000. Incident suppression costs estimated at $9,140. Property saved estimated at $30,000,000 (20 to 25 homes).

The fire was contained at 2000 hours and controlled at 2200 hours on July 2, 2009. After extensive mop up and patrol, the incident was terminated on July 4, 2009, at 1318 hours.

FIRE ENVIRONMENT

Location

The River Bottom Fire was located along the river bottom and south bank bluffs of the San Joaquin River, near Toletachi Road. The fire started along the river bottom, which is within the City of Fresno. The fire then extended up the bluff and into the houses within a Fresno County island protected by the North Central Fire Protection District and onto a small portion of Madera County, which extends along the south bank of the river. The acreage breakdown was 57 percent (6.8 acres) City of Fresno/Fresno Fire Department, 13 percent (1.6 acres) Fresno County/North Central Fire Protection District, and 30 percent (3.6 acres) Madera County/Madera County Fire Department.

One hundred (100) percent of the fire was within the Fresno Fire Department Direct Protection Area (DPA).

Weather

Weather conditions at the time of the fire were 90 degrees with a relative humidity of 30 percent on the river bottom with winds less than 1 mph; however, the conditions transitioned to 100 degrees and 14 percent humidity on the upper slopes. The fire was being driven by a moderate up slope, up canyon wind predominantly from the northwest at 7 miles per hour at the ridge top. Later in the evening the winds changed to a stronger up canyon wind blowing from the west southwest, which caused some torching of partially burned fuels that threatened control lines.

Topography

The topography of the fire area included dry grass and brush (fuel model 1) in a flat area of river bed overflow alluvial. The fire then quickly transitioned to a 120 percent slope covered with the same fuels plus small stands of sycamore, oak and willow trees, some of which showed scars of previous fires. The top of the slope transitioned into the decks and backyard of residential structures, many less than ten feet from the top edge of the slope.

Fuels

Fuels in and around the fire area are mainly one- and ten-hour fuels and all were dead and/or dormant. The area is generally dominated by brush species with small stands of sycamore, oak, and willow trees, some of which showed scars of previous fires. Fuel beds are at least 20 years old and are well developed along the base of the bluffs.

Area Fire History

Numerous fires have been recorded in the area; however, most have been very small (less than .25 acre). The last major fire in the area occurred around 1983.

Fire Investigation

Fire investigation is still pending at the time of this report.

RECOMMENDATIONS

- The Fire Department should form a Type III Incident Management Team consisting of members able to fill multiple positions within the Command and General Staff functions for activation during medium- to large-scale events. The IMT should develop detailed descriptions of trigger points for initiating the team and who would fill these positions. Additionally, identify

and place a chief officer or communications team member at the Fire Department's communication center to help with resource allocation and communication needs.

- Develop "wildland zones" within the CAD. All addresses within the hazard/interface areas would be programmed with a higher dispatch level during fire season to include additional engines, patrol/brush rigs, and a battalion chief.

- Consider exchanging Water Tender 2 with Water Tender 3. Water Tender 3 is turbo charged and possesses the additional horsepower needed to climb in and out of the steep roads in and around the river bottom.

- Consider dispatch patrol/brush engines into interface areas as a single unit, leaving the engine behind for backfill personnel to staff in recall situations.

- Command officers need to have emergency purchase order numbers pre-arranged for use to order aircraft or other specialized equipment for incidents, which fall outside of normal master mutual-aid requests.

- Brush engines and patrols need to have NPS fittings on wildland hose. This will facilitate easier joint operations and speed up the replacement process for Fire Department hose, which may be lost or damaged on mutual-aid event in other jurisdictions.

- A logistical cache of water and Gatorade should be maintained in a centralized location available for immediate deployment to incidents (fires, HazMat events, rescue operations, Regional Task Force deployments, etc.). The cache should then be rotated after one year to the field for general use by the fire crews for day-to-day operations.

- Expand the use of CERT to include 24/7 available to respond as support functions. Consider the use of CERT to deploy, staff, clean, and maintain Support One and other light vehicles used to support emergency operations.

- Provide updated training to all operational personnel on the Fire Department's communications network. For example, Yellow Net or Gold Net would have improved communications and freed up the Green Net for normal city operations.

- Improve the Fire Department's relationship with other agencies and private contractors to plan for future emergency needs. Special consideration should be made for air resources.

- Update the Fire Department's recall process to meet the needs of the 2/4 work schedule. Command officers should consider whether they need additional apparatus staffed or have recalled personnel report directly to the incident with their gear.

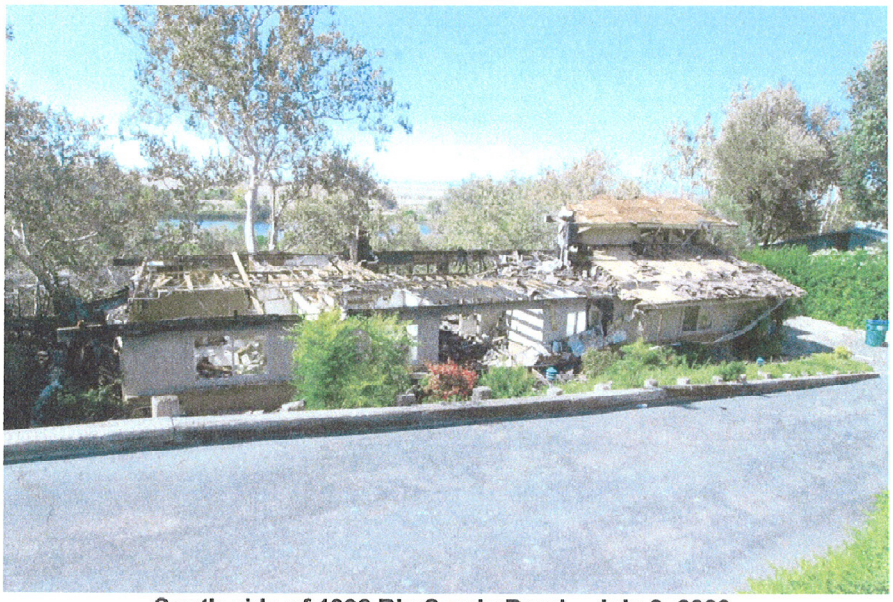
- Expand role of GIS team to include ability to provide faster mapping for command officers on scene. (Maps in less than 1 hour).

ATTACHMENT A - Incident Map

Incident No. FRN 0953767

ATTACHMENT B - Photos

South side of 1398 Big Sandy Road – January 31, 2008

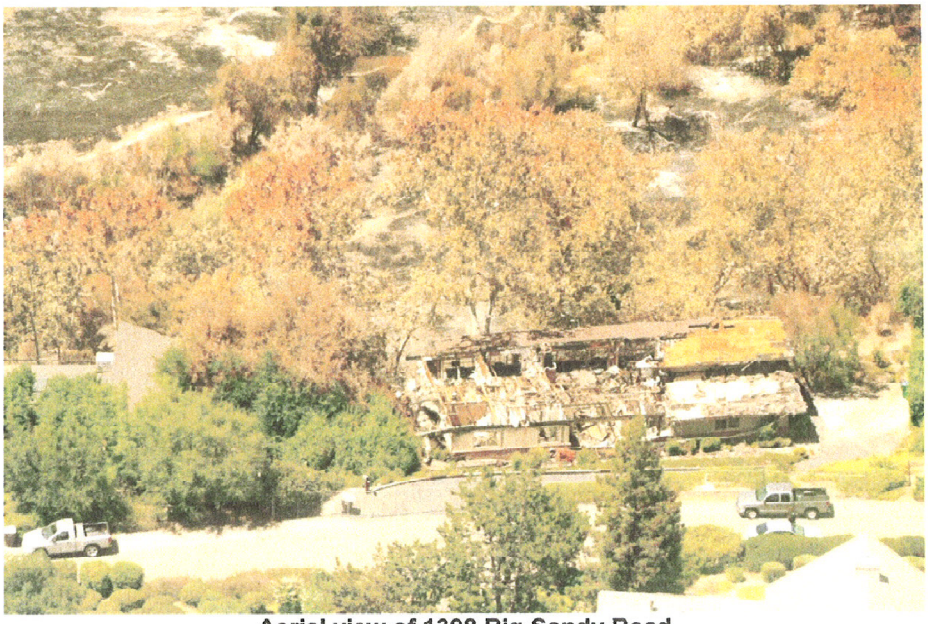


South side of 1398 Big Sandy Road – July 3, 2009.

Back of 1398 Big Sandy Road

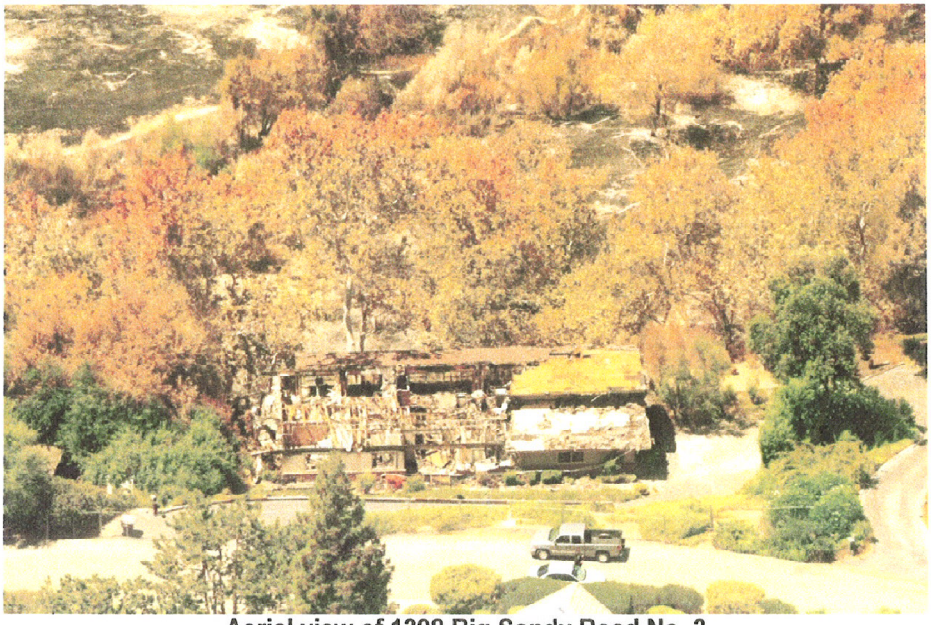
North slope of 1386 Big Sandy Road

River Bottom view from 1386 Big Sandy Road

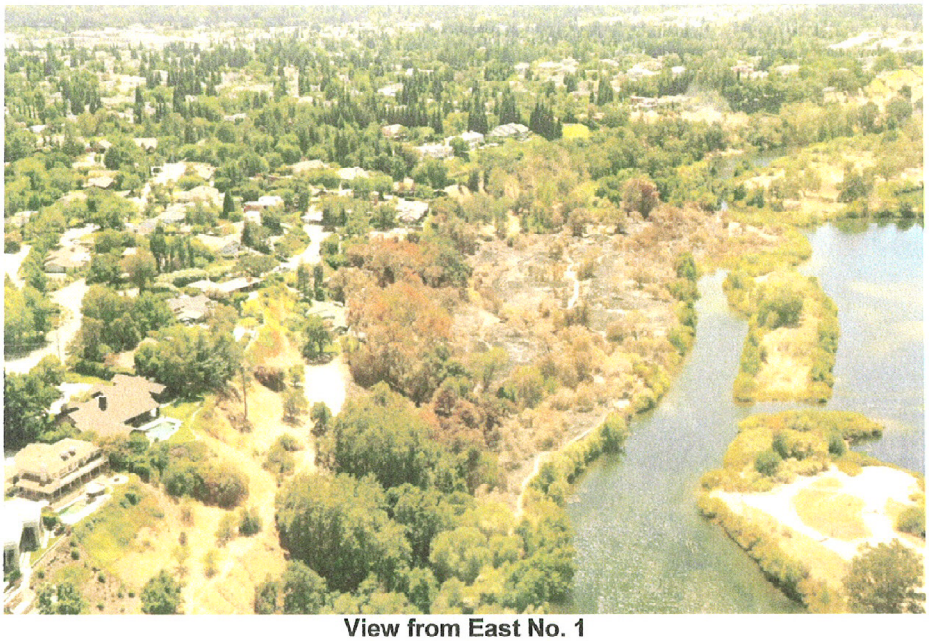


Aerial view of 1398 Big Sandy Road

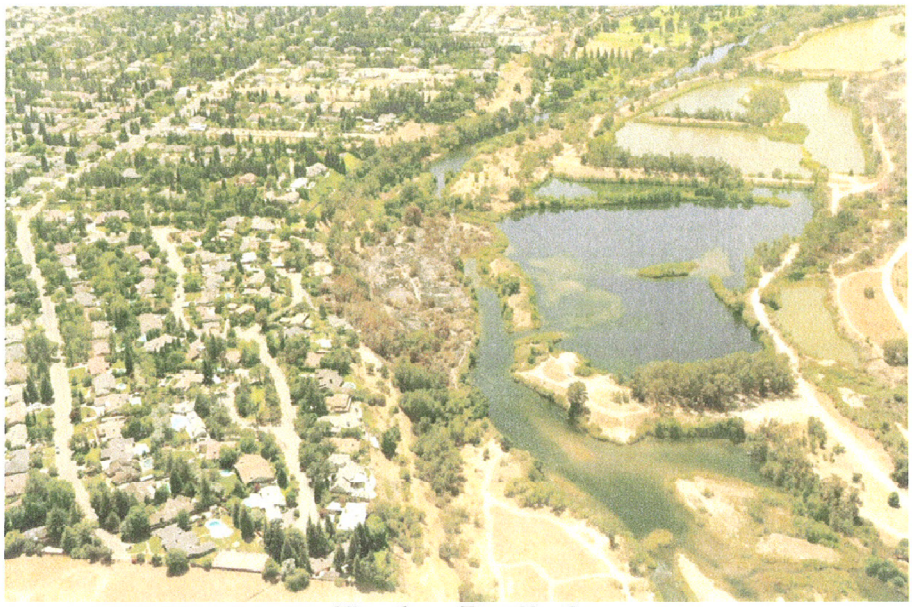
Aerial view of 1398 Big Sandy Road No. 2



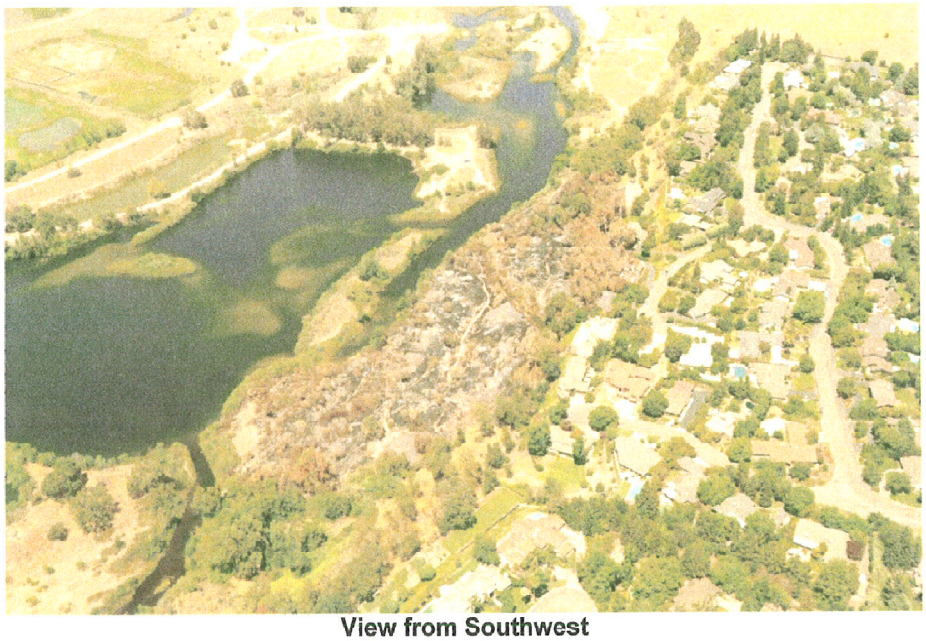
Aerial view of 1398 Big Sandy Road No. 3



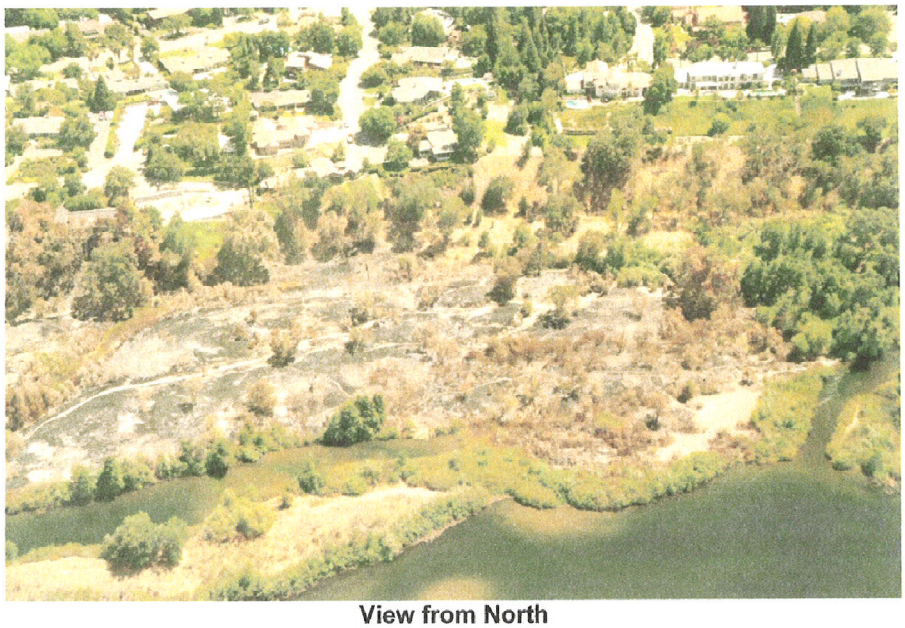
View from East No. 1



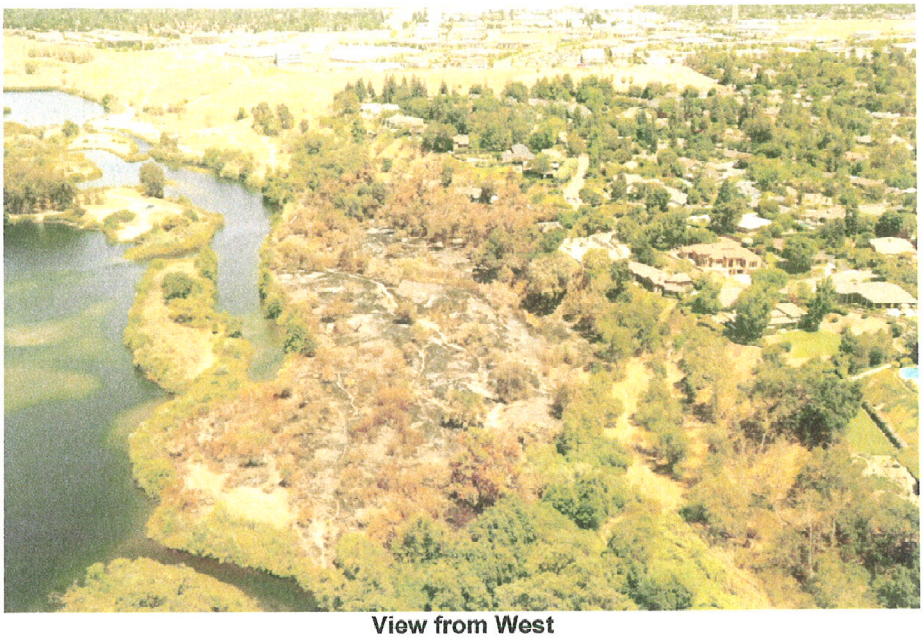
View from East No. 2



View from Southwest

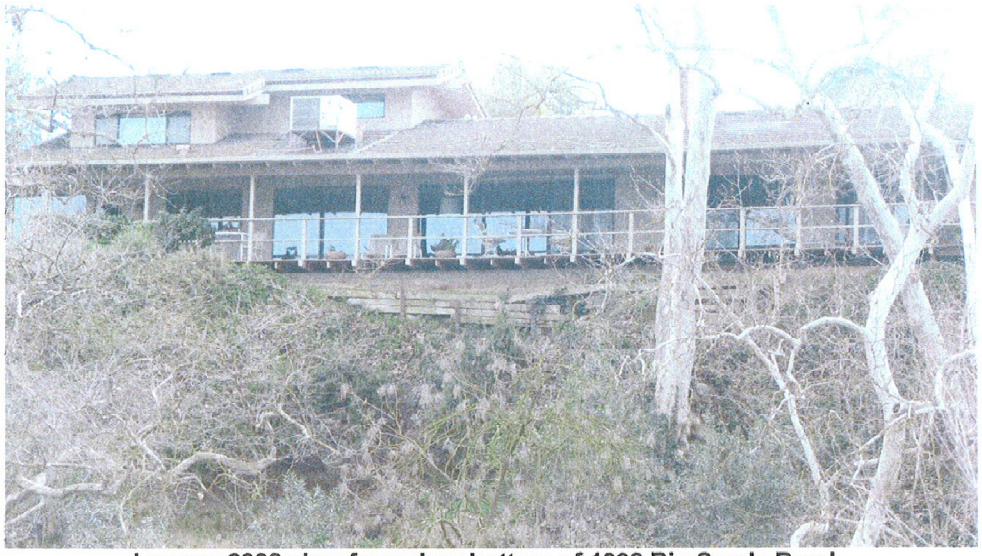


View from North



View from West

January 2008 view from river bottom of homes along Big Sandy and Toletachi Road



January 2008 view from river bottom of 1398 Big Sandy Road

January 2008 view from river bottom of 1386 Big Sandy Road